

# The Research on the Growth of Independent Innovation Entrepreneurial Enterprises and Open Innovation Mechanism Based on Institutional Perspective

Xiaoyu Niu<sup>1, a</sup>

<sup>1</sup>Nanfang College, Guangzhou, 510970, China

<sup>a</sup>niuxiaoyu312@126.com

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**Abstract:** With the deepening and wide application of various emerging technologies and concepts, communication and cooperation between enterprises become more and more frequent. Open development and innovative development have become the inevitable choices for enterprises to realize their sustained and healthy growth. Especially under the guidance of the state's macro-system of strongly encouraging innovation and entrepreneurship, the growth of independent innovation and entrepreneurship enterprises and open innovation issues are increasingly becoming social focus issues. This paper discusses the impact mechanism between the two and puts forward the corresponding open innovation strategy based on the relevant national encouragement system. With the continuous development of high and new technology and its wide application in the production and operation activities of enterprises, economic ties between enterprises are becoming more frequent. It has become an essential choice for most enterprises in the digital economy era to adopt an open attitude to face the competition and the market and to continuously carry out product innovation and technological innovation. Especially for small-scale and late-start independent innovation and entrepreneurship enterprises, openness and innovation are the basic conditions for their survival and development in the new competitive and technological environment. In recent years, China has launched a series of policies to encourage the development of innovative and start-up enterprises, especially pointing out the development direction of "specialization, refinement, particularity, and innovation" for manufacturing enterprises and introducing relevant support and reward systems. Under the influence of these two factors, it is of great practical significance for independent innovation and start-up enterprises to explore what form of open innovation an enterprise should take and how it functions.

**Keywords:** Self-employed, Open innovation, Innovative enterprises.

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## 1. The Institutional Environment for Independent Innovation and Entrepreneurship

The institutional environment includes a formal regulation system and an informal personnel system, and it is an important part of the external objective environment facing the development of enterprises. Among them, the formal system is more concrete and has a more direct impact on enterprises. In recent years, China has implemented a series of macro policies and industrial policies to encourage the opening up, innovation, development, and growth of independent innovation and start-up enterprises, which are in a relatively favorable institutional environment (Table 1).

(Policy source: collated through government websites such as the Ministry of Industry and Information Technology and the National Development and Reform Commission)

In addition to the above-mentioned systems and policies, the state has also promulgated a series of systems and policies related to optimizing the business environment, optimizing the training and selection of human resources, and optimizing economic infrastructure. These policies together constitute

the institutional environment in which independent innovation and entrepreneurship enterprises are located, and have a profound impact on the open innovation and development of enterprises.

## 2. The Institutional Environment and the Open Innovation of the Independent Innovation Entrepreneurs

### 2.1. The connotation of open innovation

The traditional enterprise innovation model is mainly a closed innovation. The enterprises have been behindhand for a long time to carry out innovation activities, which are out of touch with the market environment, competitive environment, and technological environment. With the enhancement of the state's protection of intellectual property rights (Intellectual property system of exchanging openness for protection) and the irreversible development of the economy towards digitalization and informatization, the traditional innovation model is becoming more and more unsuitable for the new economic and technological environment. Compared with the traditional closed innovation model, open innovation has the following three main characteristics.

**Table 1.** Policies Related to Encouraging Openness and Innovation Published in Recent Years

Introduction time	Policy name	main content
2011	Industrial Development and Industrial Policy Report of China	It emphasizes the innovation of institutional mechanisms to provide a relaxed institutional environment for the realization of public innovation and entrepreneurship facilitation.
2013	Guidance on Promoting the Specialization and New Development of Small and Medium-sized Enterprises	For the first time, it has anchored the development of independent innovation and entrepreneurship in small and medium-sized enterprises in the four directions of "specialization, refinement, particularity, and innovation", emphasizing the guiding role of small and medium-sized enterprises, especially manufacturing enterprises, in promoting innovation, ensuring employment and improving people's livelihood.
2016	Implementation Guide of Industrial Strong Foundation Project	Focusing on the ten key directions identified in "Made in China 2025", we will encourage industrial innovation, and technological innovation, build an open sharing platform in the four basic areas (later expanded to the six basic areas) and nurture tens of thousands of "little giants" and thousands of market leaders.
2019-2021	Foster a Small Giant Enterprise with Speciality and Speciality	Every year, a batch of three groups of specialized small giant enterprises will be announced, and they will be given key support through such practical measures as financial incentives, loan interest subsidies, and research and development grants, to encourage them to further open up, innovate and develop.
2022	Gradient Cultivation Measures for High-quality Small and Medium-sized Enterprises	We have established a four-tiered framework for the cultivation of small and medium-sized enterprises, ranging from "technology-based small and medium-sized enterprises", and "innovative and entrepreneurial small and medium-sized enterprises" to "small giant" enterprises and industry leaders. We have increased support for small and medium-sized independent and innovative and entrepreneurial enterprises in terms of taxation, financing, bidding, etc.

The first one is openness. Compared with the traditional model, open innovation emphasizes the openness of innovation activities, which is embodied in both internal and external aspects. From the perspective of internal activities, it emphasizes the coordination and openness between various functional departments and between business departments and functional departments and encourages enterprises to build their open innovation platforms and systems to integrate internal innovation activities. From the perspective of external activities, it emphasizes the openness between organizations, treats the innovative achievements and innovative thinking of other organizations with an open attitude, and applies and improves them on the premise of respecting intellectual property rights to promote common development and progress.

The second one is systematicness. Under the open innovation model, innovation activities are no longer the work of the technology department and research and development department but the common responsibility of all staff. Also, they are systematic activities involving all levels and departments of the enterprise from top to bottom. The management should lead the related activities of the enterprise with innovative thinking and construct an innovative corporate culture and organizational structure that encourages innovation and does not fear failure. Front-line

technology departments should view technological innovation and product innovation activities from the perspective of overall enterprise development and even industry development, and closely combine their work with the strategic objectives and business objectives of the enterprise. Other employees should treat their work with innovative thinking and actively obtain information and data related to enterprise innovation from their work.

The third one is strategy. Significant changes in the competitive and technological environment have transformed innovation activities from a subsidiary activity to a core activity of an enterprise. Especially for independent innovation and start-up enterprises, the continuous subdivision of social division of labor and the continuous subdivision of competitive market requires enterprises to take open innovation as a long-term development strategy. Enterprises need to reform their management system and organization form from a strategic point of view to build themselves into an all-round and open modern economic organization.

## **2.2. The impact mechanism of institutional environment on open innovation of independent innovation and start-up enterprises**

Based on the characteristics of the open innovation model, we can see that the impact of the institutional environment on enterprise open innovation is mainly reflected in the following three aspects.

### **2.2.1. The institutional environment affects the strategic choices of enterprises**

As mentioned earlier, open innovation has become a strategic organizational activity. Under the current institutional environment, the state vigorously supports independent innovation and entrepreneurship enterprises from the policy level to develop in the direction of "specialization, refinement, particularity, and innovation". For enterprises, this direction has a profound impact on the choice of their strategic objectives and strategic paths. From the perspective of strategic objectives, most enterprises anchor their objectives as innovative enterprises and scientific and technological enterprises, focus on the development of innovation in their production and operation activities, pay attention to the sharing and improvement of technology in the process of foreign exchange, and lead their development with innovation orientation. From the perspective of the strategic path, independent innovation and start-up enterprises under the influence of an institutional environment are no longer limited to the traditional cost-leading or the differentiated basic strategic implementation path but more emphasis is placed on finding a niche market that fits them and launching mixed competition which combines the two basic strategies, even creating new demands and new markets through innovative activities.

### **2.2.2. The institutional environment affects the ideology and culture of the enterprise**

Open innovation requires enterprises to keep an open attitude towards both internal and external aspects and view the development of innovation activities with more inclusive thinking. The current institutional environment sets openness and sharing as important starting points to realize economic modernization and digitalization. Under this environment, enterprises can obtain explicit benefits such as tax relief and huge bonuses and implicit benefits such as brand promotion and impact promotion. Realistic interests have driven the opening up of corporate ideology and culture in the opposite direction. This can be perfectly confirmed by the rapid increase in the number of patent applications. According to public data, the number of applications for intellectual property rights in China ranked first in the world for eight consecutive years, among which the proportion of applications from small and medium-sized enterprises increased from 10% in 2014 to nearly 30% in 2021.

### **2.2.3. The institutional environment affects the business model of the enterprise**

The business model is the basis for an enterprise to achieve its business objectives. The impact of the institutional environment on the business model of the enterprise firstly reflects the impact of internet thinking. The thinking at the bottom of the business model of the enterprise changes from industrialized thinking to internet thinking (customization, personalization, and quick response). Secondly, it is reflected in the impact of the diversified operation. Compared with the

past, the institutional environment encourages enterprises to break the time and space restrictions of the traditional business model and realize cross-border operation integration with the help of innovative platforms and shared platforms.

## **3. The Open Innovation Strategy of Independent Innovation Enterprise under the Current Institutional Environment**

### **3.1. Establishing an open innovation strategy**

Strategic management is the core of the enterprise management system. For independent innovation and start-up enterprises, the transition from a closed innovation model to an open innovation model is long-term and systematic work. In order to realize open innovation in the era of the digital economy and shared economy, we must first determine the open innovation strategy and take it as the unified action guidance of all levels and departments of the enterprise.

### **3.2. Setting an open innovation path**

After the open innovation strategy is established, independent innovation and start-up enterprises need to set a clear and implementable path to achieve the strategy, effectively refine and dismantle the strategic objectives by setting stage objectives and other means, and finally establish a scientific, reasonable, and efficient open innovation system. On the one hand, enterprises need to focus on building their open innovation platform system to train and select relevant talents within the enterprise. On the other hand, it should be actively integrated into the innovation platforms of other organizations to view the development of open innovation with shared and inclusive thinking. Moreover, it should combine with the internal and external actual situation of the enterprise's strategic implementation path to make a summary and adjustment. At the same time, the enterprise also needs to change the original corporate culture and reset the personnel-oriented and role-oriented cultures that are compatible with open innovation.

### **3.3. Establishing an open management model**

Open innovation emphasizes the absorption, integration, and utilization of external resources. In this process, it opens its innovation and creation process to realize technology sharing. This requires enterprises to be in an open and flexible management mode. For independent innovation and start-up enterprises, they should start reshaping their management model with open innovation as the guidance at the beginning, and should not shelve it for their own scale reasons and then change it after they grow. Since Huawei was still in the stage of small and medium-sized enterprises in 1997, it started to change its corporate management model, put forward its management objectives in line with its internationalization strategy, researched and designed various management processes and management systems of the enterprise, and formed an open management model, which greatly promoted the rapid development of the enterprise in the next 20 years or more.

## **4. Summary**

To sum up, the relationship between enterprises has changed more frequently and closely in the digital economy era than in the past. Openness and sharing have become the

essential choice for enterprises, especially independent innovation and entrepreneurship enterprises, to realize their development and growth. In this process, the institutional environment has a profound impact on enterprises from many dimensions such as strategic choice, ideological culture, business model, etc. Therefore, enterprises should comprehensively judge their external competitive environment and internal innovation status, select appropriate countermeasures, strengthen the development of their open innovation work, help enterprises obtain an ideal competitive position, and promote the realization of enterprise goals.

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